Document No. 10814

IDAHO NATIONAL ENGINEERING ENVIRONMENTAL LABORATORY PUBLIC MEETING

Test Area North Comprehensive Remedial Investigation/Feasibility Study Proposed Plan

FINAL AS OF NOVEMBER 18, 1999

February 24, 1998
Boise, Idaho
7:00 p.m.

Nancy Schwartz Reporting
2421 Anderson Street
Boise, Idaho 83702
(208) 345-2773

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BOISE, IDAHO, TUESDAY, FEBRUARY 24, 1998

MR. SIMPSON: Welcome to tonight's meeting. I'm Erik Simpson. I'm the community relations plan coordinator for the INEEL Environmental Restoration Program. I will be the facilitator tonight.

We're here to discuss the results of the Test Area North Comprehensive Remediation Investigation/Feasibility Study and the subsequent proposed plan. This is the fourth Comprehensive Remedial Investigation/Feasibility Study completed under our Federal Facility Agreement and Consent Order, which is our legally binding clean-up agreement between the Department of Energy, Environmental Protection Agency and state of Idaho.

I should mention we have five more Comprehensive Remedial Investigation/Feasibility Studies underway, and we'll be releasing proposed plans on those projects over the course of the next five years.

The last time that we were in Boise was about a month ago to discuss the results of two other comprehensive investigations. Those dealing

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with the Naval Reactors Facility, also known as Waste Area Group 8 and Argonne National Laboratory-West, which is Waste Area Group 9. The comment period for those projects was extended, based on a request from the public. The comment period will continue until March 12th. So we have roughly two and a half weeks to go.

The agencies plan to sign a Record of Decision for those projects sometime this summer, then any remediation activities would, probably, begin late fall or into the spring.

The purpose of tonight's meeting is really three-fold. The first reason that we're here is to present information on the Test Area North Comprehensive Investigation. It's been ongoing for about 30 months; second, we would like you to ask questions of us and interact with the project managers, which some of you have been doing already; and third, we want to have a chance to listen to what is important to you and encourage you to provide oral comments for the record. And I should state, also, that we have a comment form in the back of the proposed plan, and it's postage-paid, so you can jot down your comment and fold it and put it in the mail. Your comments will

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be considered by the agencies and responded to in the Responsiveness Summary section of the Record of Decision.

We have a court reporter here tonight, who will be recording all portions of the meeting. And I will talk about that in a little while.

Also, in the back of the room, we have a resource table where we have brought several documents. We have got three proposed plans: Waste Area Group 1, Test Area North; Waste Area Group 8, Naval Reactors, and Waste Area Group 9, Argonne National Lab. And we have some INEEL Reporters. We got some Citizens' Guides. We have the Community Relations Plan, and we have the Federal Facility Agreement and Consent Order.

I would like to take second to review the agenda with you. Shortly, I'll introduce everyone who is associated with this project, and then we'll hear the presentation. And following that, we will have a question-and-answer session where you can ask questions of the project managers. You can either do that just out loud or we have five-by-seven cards, too, if you want to jot down a question on a card.

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Following the question-and-answer session, we will have the public comment period where your comments are entered into the record. And on the back of the agenda, we have an evaluation form. If you would just take a few moments after the meeting and jot down your impressions of this gathering here tonight, and we'll use your comments to shape the future public meetings that we have.

With that, I would like to introduce everyone who is here tonight associated with this project. First we have Mark Shaw. Mark is the Waste Area Group 1 manager for the Department of Energy. He has been involved in this investigation for about 18 months.

MR. SHAW: A couple years.

MR. SIMPSON: A couple years. We have Doug Burns. Doug was instrumental in conducting the risk assessment for this investigation. He is with Lockheed Martin Technologies Company.

We have Dave Michael. Dave is the project manager on the Waste Area Group 1 Comprehensive Investigation. He is also with Lockheed Martin.

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Also, I would like to introduce Clyde Cody. Clyde is with State of Idaho Department of Health and Welfare Division of Environmental Quality.

And Matt Wilkening is with the Environmental Protection Agency Region 10 office in Seattle. And both of our agency representatives will make a few statements.

MR. WILKENING: I'm Matt Wilkening with EPA out of Seattle. I've been working on this site since we started it. I'm one of the few people who have had the pleasure of doing that. We think that we've come to a pretty to good idea as to what alternatives we should use for remediation at this site.

But working on it over, what, a three-year period, we could get tunnel vision and that is why it's important to take this out to the public and talk to you guys and see if it makes sense to you as to what we want to clean up this site, so please listen, and ask questions. Hopefully we will give you an answer that you're interested in hearing and explain things, and submit any comments that you have. Thank you.

MR. CODY: I'm Clyde Cody with the

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Division of Environmental Quality. I work here in Boise, and pretty much the same thing that Matt said, that I came in this project in the middle of it, pretty much, and worked towards the preferred alternatives and now is the time to get the public's input. We want to see what people think of our plan and go from there, so we will look very much forward to hearing what you have to say tonight. Thanks.

MR. SIMPSON: Thanks. With that, I would like to bring Mark Shaw up here. Mark, once again, is the Department of Energy Waste Area Group 1 manager. And he will give a brief background of Test Area North and a little bit about the comprehensive investigation.

MR. SHAW: To get oriented here, Test Area North sits in the north central portion of the INEEL. TAN has a pretty colorful history. It all started back in 1954 when President Eisenhower heard a rumor that the Russians were building a nuclear powered airplane, and he decided if they are building one, we better have one too. So he commissioned the Aircraft Nuclear Propulsion program and sited it out in the Arco desert.

This is actually the hanger they

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built for the airplane. They never actually built the plane, but they did build a couple engines for it, which they tested out at the Initial Engine Test Facility. This facility no longer exists.

AUDIENCE MEMBER: Mark, when was that first picture taken?

MR. SHAW: In 1996. This one was in '85. After that program was canceled in '61, the emphasis really shifted to reactor research. This is the Water Reactor Research Test Facility where they tested pool and cable type reactors. Actually, I want to go back to this first one. This is the LOFT Reactor, Loss of Fluid Test Facility, where they tested the effects of cooling water losses on reactor cores.

This will give you a big picture view of the site. The hanger is back here. That white dome is the loss reactor. They would pull the cores out and ship them by train down to the hot shop here where they would inspect them.

We all remember the Three-Mile Island accident. They shipped fuel across from Pennsylvania, and they examined it in the hot shops there.

By far the most interesting project

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going on up there now was in the old aircraft hanger. They actually built the building inside the hanger where they built the armor for the M1-A1 tank. The armor is made out of depleted uranium which is an incredibly dense material and it makes great armor.

As you can imagine, a lot of industrial type activity over about a 45-year period, a lot of chemical waste generated, a lot of rad waste generated, and this led to releases to the environment.

When we started this investigation about three years ago, we went through every facility at TAN, looked at all the active facilities, all the inactive facilities looking for those releases to the environment. We found 94 potential releases. Thirty-one of those were addressed in a prior Record of Decision, the Operable Unit 1-07B Record of Decision. You may have heard of the TAN groundwater project, that is the Record of Decision that covers that project.

Of the remaining sites, eight have an unacceptable risk for human health. It is really what we're here to talk about tonight. Two

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sites have an unacceptable risk for ecological receptors, and the remaining 53 sites, we're recommending for No Further Action.

Now, what No Further Action means, if you remember, these were potential release sites. A No Further Action site could be something where we thought there was contamination, but upon further investigation, there was none, or there may be contamination there but it's at such a low level, it doesn't pose a risk.

The two eco sites are not addressed in our proposed plan. When you do an ecological risk assessment, you look at the impacts that your site has on an entire population of receptors. And our two eco sites are so small that they would not have an impact on an entire population of receptors.

So what we're doing is a comprehensive INEEL site-wide ecological risk assessment. And those two sites are going to be addressed in that.

What I would like to do next is kind of take a tour of the eight sites that have an unacceptable risk for human health. They are divided up into three categories, the first of

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which is nonradiological contaminated soils. Is that an exciting picture or what? If you look real close, this is one of the burn pits, and the other burn pit sites looks like this.

The burn pits is where they would take industrial or construction debris, scrap pallets and two-by-fours, waste, paint, turpentine, that kind of stuff. They would take it out in the desert and dig a pit and at the end of the day, they would put this stuff in it and burn it. That is how they disposed of it.

The first slide I put up, there is one burn pit there. There is actually four burn pits here. The total area is about a half an acre, and we're concerned about some lead contamination in the soil.

The next nonrad contaminated site is a mercury spill site. The aircraft engines that they were making under the Aircraft Nuclear Propulsion programs, those reactors were shielded with mercury. As they were taking one of the engines into the hot shop here, they managed to spill from 800 to 1000 gallons of mercury along the railroad tracks. That was back in, I think, 1958. They picked most of it up right after it happened,

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but some was left behind. I think it was 1990 or '93, they went back and did a removal to take out the rest of the mercury. The railroad tracks are no longer there. They dug down about four feet, but there is still some mercury remaining.

And the last of the non-rad contaminated soil sites. This is the diesel spill site. There are two diesel tanks, one here and one here, and a pipe about 100 hundred feet long connecting them, the pipe between the two tanks leaked. The tanks and the pipe have all been taken out, but there is still some diesel contamination remaining.

The next category --

AUDIENCE MEMBER: Could we go back to the mercury for just a minute? What sort of remaining mercury is there, subsoil or deeper?

MR. SHAW: Yeah, it's in the soil. They took the tracks out and the ties are gone. It's pretty much this whole area from here up to the building. They went down -- maybe Dave can help out -- about four feet, I think, excavated down to four feet and back-filled it with clean soil, and deeper than four feet there is still some mercury remaining.

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These are the two radiologically contaminated soil sites, the first of which is Area B, south of the turntable. The turntable sits right about there, and we're talking about this triangular area here. This area was contaminated, actually from this area here, which I will talk about in a minute.

These are the PM-2A tanks. There was a spill when they were transferring the contents of the tanks to a tanker truck, which contaminated the soil in this area. And at least in the eastern end of the state, the wind always blows this way. It actually blew the contamination from this area over across the road into this area.

We did a removal action a few years ago where they got most of the contaminated soil, but there is five areas left that are still contaminated. It's about an acre, and cesium-137 is the contaminant that we're concerned about there. The other rad soil site is the disposal pond. This is the berm that goes around the pond that actually extends on down. It's about a 35-acre pond. Only the area in this top corner here is contaminated. It's about five acres.

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Cesium-137 and, possibly, radium-226.

AUDIENCE MEMBER: The cesium spill, what year was that?

MR. SHAW: Do you guys remember the date when we over-filled the PM-2A tanks?

MR. BURNS: We could look that up.

MR. SHAW: It's in one of documents. We will look it up for you. I'm thinking it was in the mid-'80s, but I'm not certain.

The last group of sites are the tank sites. This is V1, 2 and 3 and V9, which is another smaller tank that sits over here. These are 10,000-gallon stainless steel tanks. There is some soil contamination at the surface from when the tanks were overfilled. About 6,000 gallons total spread amongst these four tanks. A real interesting cocktail of stuff in these tanks is listed. Hazardous waste, metals, radionuclides, PCBs, all kinds of good stuff.

And last of the tank sites, the one that I showed you these other ones, these are the tops of the PM-2A tanks. They sit this way. These are two 50,000-gallon carbon steel tanks. They were pumped dry, down to about an inch of the

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bottom. The remaining liquid was absorbed in diatomaceous earth that was blown into the tanks. Like I said before, there was some soil contamination from a spill. Cesium-137 is what we're concerned with there.

I hope that should give you a picture of what we're talking about here. Doug Burns is going to come up and talk about the risk assessment.

MR. BURNS: It turns out that the spill, the large spill at the PM-2A tanks, was in 1972. And PM-2A tanks were shut down in 1975 due to continuing spillage and operational difficulties.

As Mark mentioned, we did preliminary investigations at the Test Area North and identified 94 potential release sites. This first slide that I'm going to show you kind of outlines the process, the investigation process that we followed to track those 94 sites and evaluate them.

The process started out with a preliminary investigation phase where we identified these sites and moved into identification of No Further Action sites. We identified which of

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those 94 potential sites really didn't have any source of contamination. And we also identified several removal action sites. These are sites that we could take some fast action, remediating the contamination of these sites. Removal actions included, like, the mercury spill site that Mark mentioned, the radionuclide contaminated soil removal action. There was a bottle, buried bottle site, settling type bottles, and we dug up some of those bottles. There was also the groundwater contamination site that Mark mentioned.

At Test Area North, right up here in this area, there, that is an injection well. And through the 1950s, 1960s and '70s, contaminated liquids were injected down that well into the Snake River Plain aquifer beneath Test Area North. That well was shut down, and in 1989 we went into the well and took out of contaminated sludge from the well. That was actually the first removal action at the INEEL. But there is still a groundwater contamination plume that extends out from that well. Right now we are undergoing some remediation efforts of that contamination plume. We're trying to contain the plume and are investigating various ways to try to reduce the size of that plume.

So this Remedial Investigation Feasibility Study that we're here to talk about tonight, builds on that Record of Decision for the OU 1-07B project. For the purposes of our investigation, we assume that all of the remedial efforts associated with that groundwater plume will be successful. And we calculated our risks with the remedial -- or the residual contamination in the groundwater plume as our baseline, so we evaluated potential contamination that might move to the groundwater and add to the residual left over from that groundwater plume.

Okay. Then our investigation now has moved into the comprehensive investigation. This comprehensive investigation, we took all of our sites that we've identified contamination at, and we calculated risks, comprehensive risks from all of those sites.

This comprehensive study is now moving into the decision phase, of which the proposed plan is part of that decision phase. Then, once we move through the comment periods, take all your comments, respond to the comments, respond to the agency comments on this proposed plan, we will write a Record of Decision for the

Operable Unit 1-10 Remedial Feasibility Study. This Record of Decision we will identify remedial designs and remedial actions, monitoring plans, and possibly No Action determinations for other sites.

All right. The next slides I will show you summarize the risk assessment that we performed for this Comprehensive Remedial Investigation Feasibility Study. As Mark mentioned, our risk assessment had two parts, a human health evaluation and an ecological evaluation. We're here primarily to talk about the human health evaluation. And, in turn, that human health evaluation also had two parts. The first part was an the occupational exposure scenario where first of all, we evaluated potential risks to workers who might be working at the site today, at these contaminated sites today, and also risks that might be posed to workers who would work at the sites 100 years in the future. Right now we expect that the Department of Energy will maintain institutional control of the INEEL for 100 years, so that is why we established the 100-year occupational scenario.

The second part of the human health

analysis was a residential scenario. Under this exposure scenario, we evaluated risk to a hypothetical resident who might move to the Test Area North area after DOE gives up the institutional control.

All right. Under those two exposure scenarios, we evaluated various exposure pathways. An exposure pathway is basically a means by which contamination can move from the environment and get into a person's body. For instance, somebody might inhale contaminated dust that is produced by some of our release sites or might ingest soil that is contaminated at our sites. So this picture illustrates some of the exposure pathways -- well, on all of these exposure pathways, we evaluated our risk assessment. Under each one of these exposure pathways, we calculated risks for each contaminant that we identified at the release sites.

AUDIENCE MEMBER: May I ask a question? Do you take into account the secondary contamination of an individual who might go hunting and shoot one of those deers?

MR. BURNS: What we tried to do was to evaluate the worst-case exposure scenarios. If somebody were to go hunting at one of these sites,

they would tend to be there for a limited amount of time, a couple weeks. They might eat the meat from the deer that had been at the site for a little bit of time. So the scenarios that we evaluated, we used what we call upper-bound exposure parameters. For example, the residential scenario, we assume that somebody would be exposed to the contaminants for 350 days per year for a 30-year duration, so we built these upper-bound exposure scenarios rather than the less-limiting hunting scenario. We focused more on the occupational than the residential scenarios.

Our risk assessment identified several contaminants of concern. First of all, we had a couple radionuclides. These were cesium-137 and radium-226. These radionuclides show up in the disposal pond that Mark mentioned and several of the other sites. Metals contamination, we had several metals including mercury at the mercury spill site; lead at the burn pits, manganese and arsenic, also, at the disposal pond.

We had some diesel contamination at the diesel spill site over here at Water Reactor Research Test Facility. We also had some organic contamination, principally in our tank sites.

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These are principally chlorinated solvents that have been spilled at our sites. Then we also had polychlorinated biphenyls, PCBs.

AUDIENCE MEMBER: Any organics acids?

MR. BURNS: No, principally they were solvents, those types of things.

AUDIENCE MEMBER: Alcohol.

MR. BURNS: Yeah. The next three slides illustrate -- well, they summarize the actual risk results that we calculated. Okay. This first slide shows the results of the occupational exposure scenario. Now, this left-hand scale right here shows it's a scale of risk results.

Let's imagine for a second we had a release site where a worker, working at that site for 25 years, would have a one chance in 10 of developing cancer as a result of working at the sites. That site -- the risk for that site, would fall right here at the one in 10 level. So this graph shows that our worst-case calculated site falls at the one in 1,000 chance of developing cancer from working at the site.

Now, EPA has established an

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acceptable -- what is termed as an acceptable risk level right here at the one in 10,000 level. So any sites that have a risk that falls below this one in 10,000 risk level has been termed an acceptable -- that is an acceptable risk. So you can see from this graph we have several sites that fall above the one in 10,000 level including the PM-2A tanks, the V-tank sites, the soil contaminations area and the disposal pond.

Now, I should mention that there were three sites, the two burn pits and the diesel fuel site where all the contaminants at those sites did not have toxicity data, so we could not calculate risks for those three sites. So what we did was, we went out and sampled the sites and then compared our sample results to other regulatory limits besides risk limits. For instance, lead has a regulatory clean-up level of 400 PPM, so we have determined the risk from the burn pits is unacceptable because we had measured lead concentrations that exceeded that 400 PPM level.

AUDIENCE MEMBER: So that is just the risk level for people that have worked there for at least 25 years?

MR. BURNS: That was our assumption

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under the exposure scenario. We assumed that the worker would work at the site for 25 years, worked there for 250 days per year, and then we calculated the risk to that person, a hypothetical worker.

AUDIENCE MEMBER: Why did you guys assume the 25 years? Is that -- I mean, I don't know anyone who kept a job for 25 years.

MR. BURNS: That's right. What we're saying is that most workers work for less time than 25 years, so the risk would be less than the numbers that we calculated. But our EPA guidance for a risk assessment is geared towards calculating upper-bound risks. We're trying to be as protective as possible so our calculations are upper-bound conservative calculations. And, similarly, in the residential scenario, we assume that somebody is going to live at the site for 30 years. It's a similar case where very few people would actually live in a place for 30 years.

AUDIENCE MEMBER: I wonder if you would be missing out on people who are developing cancer that lived there for shorter periods of time that you're not calculating for.

MR. BURNS: All of these

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calculations that we perform for this risk assessment, these are calculations. We didn't actually go out and find data on how many people had developed cancer because we don't actually have people who are living at these sites, and also, we have institutional controls that are preventing workers from actually working at a contaminated site all the time. So, really, we haven't found any measurable impact from these sites, but the risk assessment we performed in a conservative manner to try to measure the upper-bound risk that might be posed by the site.

The next slide shows the results of the residential exposure scenario. It's a similar graph, but as you can see under the residential exposure assumptions, we have several other sites that fall below that one in 10,000 risk level including the PM-2A tanks, the disposal pond, and this time the soil contamination area that Mark pointed out, that triangular area and also the mercury spill site.

Those first two slides showed the results of carcinogenic risk for the risk if somebody developed cancer from exposure to the site. The final part of the risk assessment was

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evaluation for noncarcinogenic health effects.

Now, this graph the scale on this graph is slightly different. EPA has gone -- or lots of scientists have gone out and they performed measurements on various contaminants. And for noncarcinogenic contaminants, there is generally a level of exposure that does not cause any health impact at all. So EPA has developed a database that provides information about those levels of no impact. And so this noncarcinogenic portion of our risk assessment compares the level of exposure from our sites to this acceptable level, this no-impact level. And a site that has an exposure that just equals this no-impact level, we have a hazard quotient of one. So any site that produces more exposure than this acceptable level would have a greater hazard quotient than one. And those sites are shown up here in the clear area, whereas sites that have less than a hazard quotient of one would fall in the blue area. As you can see from this graph, we have the mercury spill site, the disposal pond, the soil contamination area, the V-Tanks and PM-2A tanks, all that have hazard quotients that fell above that level of one.

So that summarizes the risk

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assessment. Are there any other questions, something that might not have been clear in that risk assessment? If not, Dave Michael is going to come up and introduce the remedial action objectives that we have identified for our release sites.

MR. MICHAEL: So far tonight you have heard about the history of the INEEL. You've heard about our history of what went on in Test Area North. Doug just explained to you about the risk associated with the sites. And earlier in the program, we said there were eight sites that had risk that was unacceptable, and that we needed to look at further, as far as what we would do to control those risks or remove those risks.

So what I want to talk about now is the remediation that we propose to do at Test Area North. And we will look at them, at each site, one at a time. And as we started developing remedies for these sites, we had to have some sort of goal that would be required to take care of that site, and so we developed some remedial action objectives. Remedial action objectives are just goals that would be required to be met at the completion or during the remediation of that site.

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We divided it up into different groups. The first one is our soil pathways. We talked about we had contaminated soils. Some of those soils were radionuclide contaminated; some were nonradionuclide contaminated. So we developed these objectives that whatever we would do, whatever remediation that we would do to the contaminated soil sites, we would have to meet these objectives.

The first one that deals with the radiological contaminated sites -- and, essentially, whatever we do, the goal that would be required to be met would be to reduce the risk from cesium and radium to less than one in 10,000. The goal that we would have for the site that has lead contamination is that we would prevent anyone from having direct exposure to the lead at that site.

The last one is to prevent the uptake of mercury at that one site that they had mercury contamination. In other words, there would be no uptake through growing homegrown produce at that site, which would be a release mechanism of the mercury.

The other group of sites that we had

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was our underground storage tanks. We have seen those. We have no indication that those tanks have ever leaked, so our goal is that whatever we do with those tanks, we need to ensure that we never have a release of those tanks to the environment.

The last group that we're going to talk briefly tonight is our co-located facility. And a co-located facilities are those sites that are near or next to the 94 sites that we found that may have a potential of a release. These co-located facilities are other facilities that, because they are next to or near, we want to keep an eye on them also.

The first remedial action objective is that we want to make sure that in the next hundred years, between now and the time those facilities would be shut down or removed, tore down, that we never have a release to the environment, and we never have a risk associated with that site greater than one in 10,000.

At the same time we want to make sure that no releases from those sites that are near or next to these 94 would ever create a non-cancer risk of greater than one, the hazard quotient greater than one.

The last one is that if we ever discover a site, another site that appears to have a release to the environment that would cause a risk greater than one in 10,000, then we would remediate it, we would go in and clean it up.

After we develop these goals that would be required to be met during the remediation, we started determining remedies that we could do to possibly reach these goals. And so, as we developed these remedies, we developed an evaluation criteria. Actually, the evaluation criteria is prescribed by law, and these criteria are things that you will evaluate, whatever remedy that you look at and evaluate this remedy and compare it to other remedies.

The first two we call threshold criteria. In other words, these are two criteria that whatever remedy that we were to pick has to meet this. The first one is that we would protect the human health and environment. The second one that it will comply with laws. And it will comply with both federal laws and state laws. The next group of criteria that we evaluated each site for we call balancing criteria. A balancing criteria is a way that we can actually judge each remedy and

compare it to another.

We have long-term effectiveness, which would be for future residents. We have short-term effectiveness. This would be for the construction workers that would be doing the remedy, the workers around that site. We have -- we compare the reduction of the toxicity, the mobility of the contamination and also so, maybe, reducing the volume by treatment.

We also look and see how easy it is to implement this remedy. And last but not least, we looked at the cost. What we do is, we take every remedy that we think might work, and we compare it for these five criteria, and then see which one comes up with the highest rating.

The last is what we call the modifying criteria, so whatever we decide to do, first of all, it has to have the state acceptance, and we have to have buy-in from the state of Idaho. And then last is the community acceptance. That is one of the reasons that we're here tonight, is to tell you what remedies that we have evaluated, what remedies we have determined to be what we feel are the most preferred, and we want to get your

buy-in.

We're going to look at these in different types of contamination. The first one is the nonradionuclides contamination and then the low level radionuclides contaminated soils. We looked at various different types of remedies, the first one just being No Action. We looked at, what if we just walked away and did nothing? No site would have no action meet the two threshold criteria. So, in other words, if we were to walk away, we would not meet the threshold criteria. Remember, I said threshold criteria are criteria that must be met. So, we immediately, after looking at, it dropped the No Action.

The next step that we looked at would be limited action. In other words, we would control access to the contamination. We would do this in various methods such as building perimeter fencing around the site. We would post signs to make sure that no one got past the fence. We would control water diversion. In other words, we would make sure there was no flooding or anything that would cover the site with water and cause a problem. We would also, on a yearly basis, we would sample and monitor that contamination and

make sure that it wasn't spreading, wasn't being released to the environment. We would also, if necessary, even put deed restrictions on that piece of land where the contamination would be. Deed restrictions, what that means is that if the Department of Energy would no longer have control of this land and someone else would, say, either another agency or maybe after 100 years someone wanting to build here, we would have deed restrictions and it would be in the records that there was contamination present, same as you would have a -- you always do a deed check when you buy a home.

The next type of remedy that we looked at is containment. Containment may be an engineered barrier. It may be a large cap of native soil to make sure that the contamination was far enough away that it won't hurt anyone. We also looked at excavate and disposal for each remedy that we looked at. We looked at it and said -- we looked at the possibility of just digging them up and excavating it and then disposing of it or placing it someplace else. The last one we looked at was going in and removing the contamination, the contaminated soil and treating it in different

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methods.

What I'm going to do now is tell you what, after all of these evaluations, of the different types of remedies, what we feel is the preferred alternative. We will look at each site. The first one is the Water Reactor Research Test Facility burn pits. If you remember, this site here was a burn pit that had construction debris that was put in it and wood pallets, paint thinner, that sort of thing was put there, it was burned every day, it was in a pit, it was then later covered up with with a layer of soil, grass is grown back. After evaluating it for all the different criteria, we feel the best action for this site would be limited action. There is some residual lead contamination there and what we would do is control access with the limited action, that is with the fencing, the signs. Any time that we would leave contamination in place, we would also have a permanent marker at that site identifying, say, like a concrete marker to make sure that anybody that went up there would know not to dig.

AUDIENCE MEMBER: Do you guys have information on how much the cost was for different action plans other than just the one that you

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preferred?

MR. MICHAEL: Yes. Both in the proposed plan, which looks like this. We have the cost associated with each remedy that we looked at for the site plus the description of the remedy, and then, also, we have a very detailed description of when we looked at, the different alternatives in the Remedial Investigation Feasibility Study.

The second site we will look at is another burn pit. It was a technical support facility burn pit. This one down here. Again, that was construction debris just like the other burn pit. There was some lead contamination still left from that one. That one, also, we recommend that we have limited action. We will control it with signs, with fencing. We will monitor it every year. We will have a permanent marker.

It's also important to remember that on all of these remedies, every five years we will go back and look at them again to make sure that that remedy is working as we've claimed it would tonight. If we find something different, we find contamination starting to spread or something, then we would reevaluate and go in and change. So it will be looked at on yearly basis through

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monitoring and every five years we will look at it and reevaluate it.

AUDIENCE MEMBER: For those two burn pits -- or for those two different types of burn pits, then, what we're looking at that in perpetuity, taking care of them because of the lead, for instance, doesn't have a half-life or isn't going to go anywhere, so it's quite a long project.

MR. MICHAEL: Yes. It's also immobile so it should not move, so it should stay right there in place, and then we will control it through the different actions.

AUDIENCE MEMBER: So is there consideration -- sorry, I have not kept up with the latest February consideration of the impact of earthquakes.

MR. MICHAEL: Did we look at the risk assessment to earthquakes?

MR. BURNS: No, we didn't specifically address contamination spreads through earthquake or something like that. I think that type of evaluation -- if an earthquake were to happen, it would be -- any kind of spread of contamination would be picked up on the yearly

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monitoring and reevaluated under this five-year reevaluation process. So those types of events weren't specifically analyzed for, but we're hoping to capture any type of problem associated within the results of this monitoring and reevaluation.

AUDIENCE MEMBER: It seems to me that a substantial earthquake could generate a chasm or disruption or fault enough to allow that material to move into the aquifer.

MR. BURNS: Yes. I think in theory that could happen. In reality, the geologic setting out in the desert is such that these large chasms don't form in the sediments. There are other physical limitations on the sediment that would limit that type of a failure. But I can see your point that it is a possibility.

MR. MICHAEL: One thing, if we look at the burn pits, the burn pits have, oh, approximately, like, 30 to 35 feet of soil and then around 35 or so down below the surface then it turns to basalt. It's basalt all the way down. I think it's --

MR. SHAW: 210 feet.

MR. MICHAEL: 210 feet, then, before you reach the aquifer. So you would have to have

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some sort of a catastrophic failure of that basalt, about 200 feet of it for it to reach the aquifer.

MR. CODY: There has been a lot of thought to the earthquake problem, but mostly in terms of the facilities, the structures. As far as the burn pits, things like that, probably it would result in tremors, but there probably wouldn't be much impact otherwise. It might get shaken up in that. The most concern has always been to the facilities at the INEEL and what would happen there. They would be moved or there would be tremors that would come through, but they really wouldn't go much beyond that. When the earthquake was finished there probably wouldn't be much change in the configuration of a site, like a burn pit. There could be damage to a facility. There is always the possibility, but that is mainly how it's been looked at.

AUDIENCE MEMBER: Would the damage to the facility be, like, causing a break where leakage could occur into the aquifer? Is that what you mean by damage to a facility?

MR. CODY: A facility could be damaged to the point where there could be a leakage. I mean, depending on what the facility

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was, sure. But whether it would get to the aquifer or not, I mean, if there was something that was that obvious, there would probably be emergency measures taken to clean it up because nothing would travel that fast. That several hundred feet could take years, for all we know, to get down. It wouldn't just be a straight line down to the aquifer.

MR. MICHAEL: The next site that we will talk about is the mercury spill site, that is, the site that had the railroad tracks. As we said, we've already cleaned that up once. What actually happened was, we've got -- I want to say almost all the mercury there, but the clean-up levels that we cleaned up, too, turned out that the residual mercury that would be there just below the clean-up levels is enough of a concern, so there is not a lot of mercury there. But we felt that the best alternative would be to go in, excavate and remove that soil that is contaminated with mercury and then dispose of it off the INEEL. When I say "off site" or "on site," if I say "off site," I mean take it completely off the Idaho National Engineering Environmental Laboratory. So on site we would store it or whatever, dispose of it on the

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INEEL.

AUDIENCE MEMBER: Where would they put that if they took it off site?

MR. MICHAEL: It would have to be some place in the county that would accept mercury-contaminated soil.

AUDIENCE MEMBER: What elemental is that? What level is that?

MR. MICHAEL: It's elemental.

MR. BURNS: 25 PPM was the clean-up level of the previous removal action, so all the added contamination, 25 PPM or below.

AUDIENCE MEMBER: There is no beads?

MR. BURNS: There is no beads. It's in an elemental form but the mercury forms complexes with the ions in the soil. So there is no free mercury sitting in the soil.

MR. MICHAEL: The last one was the diesel spill site. I'll hold it up. The bottom one here between the two buildings, this area between the two buildings that, actually, as you can see, because it's in between the two buildings, it's actually inside of a facility.

The facility already has a fence

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around it. It's between two concrete buildings. It's actually a parking lot and a roadway covering the contaminated soil now. The contaminated soil was, like, five feet deep, so the first top five feet of the soil was actually clean, and then it has, like, a parking lot roadway cover on top of that, so our preferred alternative for that site would be also for limited action. We will make sure that there is signs, that there is always a fence there, a concrete marker and then we will monitor it and evaluate it every five years.

AUDIENCE MEMBER: Is there any technology available to do bioremediation, injection of any kind of microbe that probably, with very little oxygen, would be able to digest some of that?

MR. CODY: It probably will bioremediate some on its own. Then the time will be on our side because it won't be -- the pathway will be closed because there is clean soil over that so it won't be impacting anyone, so it should.

AUDIENCE MEMBER: Mother nature, basically, sooner or later will take care of that.

MR. CODY: Yeah, because it's not traveling to the aquifer. It's tied up in the

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soils above the basalt.

MR. SHAW: We call it the diesel spill site, but the material there is not diesel, it's what the diesel has degraded to.

MR. CODY: Tar.

MR. MICHAEL: As far as the radiological contaminated soils that we have, we have the soil south of the railroad turntable, and that was the -- you can't really see it on this, but there is a road right along here and just to the edge of the road, and then partly under the road, we have some soil that is contaminated with cesium. There already has been some clean-up action already going on in this area. As we talked earlier, the whole triangle along this side of the road at one time was contaminated with cesium. We had a removal action, where we went in and had been digging up that soil and hauling it off site. There is still some small areas that still have contamination left. So our recommended alternative here will be to continue that process, go ahead and excavate it, and we will dispose of it on the INEEL at an acceptable facility.

The last one is the technical support disposal pond. This one is a unique site

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that I just want to tell you briefly about. Our preferred alternative at this site is limited action, same type of limited action that we talked earlier. This site we know has cesium contamination. We've also, during our sampling and monitoring of this site, we found some radium contamination.

Through further evaluation, the data appears to show us that the radium contamination that is there is natural occurring. In other words, it's just naturally there inside the pond. If you went outside the pond a couple hundred yards and sample, you would still see the same level of radium.

If it's natural occurring, we would not clean that up. That is why we say that our preferred alternative is limited action. We're fairly certain that it is what we would call background or natural occurring levels of radium. If we also plan on doing additional sampling, if we continue to sample -- and we will be sampling, say, in the pond, we will sample outside the pond, and we determine that it is not natural contamination, natural occurring levels, then we would come back -- and it explains this in the proposed plan,

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we would actually go in and excavate it and dispose of it properly. To go in -- if you remember right, this is a 35-acre pond, five acres of that pond is contaminated, so when you go in and start digging up five acres of soil, it gets very expensive. That could go as high as $20 million if you had to remove it all. But right now, we're fairly confident that it's natural occurring and that is why we recommend limited action.

AUDIENCE MEMBER: By "fairly," what is the statistical probability? Where are you at by "fairly"?

MR. MICHAEL: We have had some other data that was taken that shows that it would be natural occurring. But just because of the analytical techniques that they performed at that time when they did that, that sampling and analyses, we can't really count on it, so we want to go back and resample it, do very detailed analyses on it, very controlled analyses on it and see if we get the same results.

AUDIENCE MEMBER: I'm not clear. The radium you're saying is naturally occurring. The cesium, however, was injected into the pond at some point.

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MR. MICHAEL: The levels of cesium that we have fall within the remedial action objectives that it would decay away. And we always look at a 100-year scenario and the cesium would decay away in that 100 years to less than the risk, the one in 10,000 risk.

AUDIENCE MEMBER: So after the 100 years is over?

MR. MICHAEL: We would not have cesium there.

AUDIENCE MEMBER: Between now and the 100 years, like, there is problems that can definitely occur?

MR. MICHAEL: Not problems that definitely occur, but in that 100 years, we would control it to make sure that no one was ever exposed to it. That is why we would have the fence and signs and the permanent markers.

AUDIENCE MEMBER: What about, like, animals that don't pay attention to fences and winds that don't abide by signs and things like that?

MR. BURNS: That, again, comes down to the yearly monitoring. We would be monitoring the site to make sure that we didn't have the cesium moving away from the pond as a result of animal burrowing or wind and things like that. If we did find that we did have contaminations movement, then we would reevaluate the scenario.

Also, on your question about the radium, we have a 95 percent confidence. The statistical analyses show that the radium detention that we have are background with a 95 percent confidence level.

MR. MICHAEL: The other group of sites that we're going to look at are the underground storage tanks. We looked at many different remedies for these tanks. You see five here, but we looked at different variations. Again, the first one we looked at was No Action. What if we walked away? That would not be acceptable. It would not meet the threshold criteria, so we immediately dropped that. Then we looked at the limited action, and we discussed that fairly well tonight.

We also looked at different types of addressing the contamination in the soil and in the tanks. We looked at soil excavation. We dig up the soil around the tanks. We would have to remove the tanks. We would treat the contents of the

tanks and also the soils around it. We also looked at removing the contaminated soils around the tanks, addressing the contents, say, by grouting or something like that of the tanks, and then disposing of the contaminated soil both on the site and off the site.

We also looked at a technology, in situ vitrification of the tanks. In situ vitrification is actually using graphite electrodes, and we would place then around the tanks in a certain array that we would actually have two planes of electrodes, and then whenever you apply high current to these, electrical current, the current flowing in between the electrodes heated up hot enough that it actually melts the soil. It will melt the tanks. It will melt the tanks' contents. It melts it into a molten mass, and then when it cools, you actually have a glassified object. In the process of doing this, you destroy or remove all the organics, all the PCBs. Any radiation that would be in the tanks through the melt, we found is just uniformly spread at lower levels so you don't have, say, hot spots in this but a lower level, uniform spread.

We have two tests going on right

now. The second one from the bottom is in situ treatment. That, like I said, was like grout. Because of the organic contamination that is in the tanks, we're not sure what the impact that would have on grouting. Grouting is, like, concrete. You can put it in, but we don't know how it would harden, so we are running what we call a treatability study currently, just to determine what the impact of high organics has on a grouting process.

The last one is the in situ vitrification. We're also running a treatability study on that. In situ vitrification, the acronym for that is ISV. That has been done before. Different technologies -- the way that we place the electrodes, though, is a new technology. You may have heard some different problems at ISV, or in situ vitrification sites in the past, but this is a new technology, the way the electrodes are placed. Now, instead of the melt going from the top down, the way they place the electrodes, the melts come in from the sides.

So we're testing that right now to see in an area where there is no contamination how that melt would react on large tanks. So we're

doing a treatability study on that. So there is treatability studies being done on both the last two. That is important to know because our preferred alternatives, the first one that we will talk about is the V-Tanks and that was the three tanks that -- I assume that you can see here on the bottom. There are three 10,000 gallon tanks sitting side-by-side. Our recommended alternative for that site is the in situ vitrification. We would actually go -- using the electrodes and the electrical current, glassify the tanks, the contents and the soils around it. Then we would do sampling after that to make sure that we removed all of the contamination.

AUDIENCE MEMBER: How do you know with that process -- now, those are the tanks, the pea soup cocktail, how do you know that you won't be causing an explosion or some criticality with that intense heat and electrode exchange?

MR. MICHAEL: As far as explosion, that is one of the reasons that we're doing the treatability study. We're doing it on a tank that is, like, 80 percent of the size of those tanks and it will have contents in it, but it will be clean contents, and then we will put soil or some other

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material that will absorb the liquid, and then we're actually going to melt those tanks or melt that tank and find out if it explodes or not. All the technology shows us right now is that it does not explode. That is why this technology was developed, because of the control of the melt and that the melt is going from the outside in. If there is any pressure or anything built up in the tanks, it gets vented off and collected in an off-gas system.

AUDIENCE MEMBER: What do you mean by the two words "in situ"?

MR. CODY: "In situ" means in place.

AUDIENCE MEMBER: Dave, I don't believe that you addressed her concern about the criticality.

MR. MICHAEL: In the criticality we have sampled, and we know that we have some uranium there, and we have looked at our analysis. And first of all, as far as the criticality, for criticality to happen, all the radionuclides would have to be condensed in a small area, in a small mass. One of the things about this treatment is that it spreads it through the whole piece of glass, so it reduces the level of contamination by

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spreading it out.

We also have been analyzing our data. It was reported that we had some uranium-235 in the tanks. Because of the complicated way it was to sample these tanks, we sampled at two different locations, and then we had to look at the worst case with our data. Now, we went back and reanalyzed it, tried to determine just what is contaminated. It should just be the solid, the sludge.

And for these 3 V-Tanks, we're pretty certain by evaluating it, and we will continue to evaluate it, that we do not have enough uranium-235 that would have a criticality problem. To have a criticality problem, the sludge in this tank is like silt that you would see in the bottom of the pond. For there to be a criticality problem, all that silt that is in the bottom of the tank would have to be condensed and compacted into a real small, tight area, and just the nature of the silt, we really don't -- there is no way for that to happen. But it is one of the issues that we will address and continue to look at as we test the technology.

AUDIENCE MEMBER: It seems to me

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that that would be a rather intense chemical phenomenon. I know if you provide heat under pressure, which is basically what you're doing, things start migrating and moving at different rates and are attracted to other components depending on their molecular weight. It sounds scary to me, frankly, to be taking -- how many gallons did do you say?

MR. MICHAEL: The tanks actually hold 10,000 gallons, but they are not full.

AUDIENCE MEMBER: But they are down to the sludge?

MR. MICHAEL: These actually have some liquid in them, these three tanks. Now, one of the processes of having a criticality problem is having the water in the tanks act as a moderator. Because when we -- for this process to work, you actually heat up the tanks to cause a melt. And one of the first things that will happen when you heat up is all the water will be evaporated off, so now you will no longer have the water to act like a moderator, so that actually reduces the chance of having a criticality, or removes the chance of having a criticality once the water is gone.

AUDIENCE MEMBER: How do you mean by

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a V-Tank?

MR. MICHAEL: We call them V-Tanks. The V-Tanks, there is actually three tanks, and they are designated V-1, V-2 and V-3. When the facility was being built, the nomenclature on the drawings labeled these, the same that you would have a building number, this would be a vessel number, so it was Vessel 1, Vessel 2, Vessel 3.

The last tank site that we have are the PM-2A tanks. These are the large tanks that you see in these photos. Those are the tanks that, when they were taken out of service, all the liquid that they could get out it of it was pumped. And there was approximately just one inch of liquid in the bottom of the tank that they just couldn't get out.

At that time they took diatomaceous earth and blew into the tank to soak up any water. So these tanks have no free liquid in them right now. They just have a layer of diatomaceous earth at the bottom. Because they had radiological contamination in the water, now the diatomaceous earth is also contaminated.

One of the things that is important to note on these tanks, because of the size, they

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are approximately 15 feet in diameter, so that means the contamination is approximately 15 feet from the top of the tank. The top of the tank is buried 10 feet below the surface, so any contamination that is there in that diatomaceous earth is now 25 feet below the surface. It's bound so it can't go anywhere and all that we're experiencing is direct radiation exposure.

What our plan would be, then, to do with this tank is that to actually fill that tank, avoid space in the tank with an inert material. It may be soil. It may be grout, but anyway, we want to fill up the tank, so whatever we fill it up with, the contamination will be at the very bottom of that fill material. And we will just control it with a permanent marker and no one would ever be able to get into it then.

AUDIENCE MEMBER: Now, is that tank carbonized steel or the stainless?

MR. MICHAEL: That is the carbon steel tanks, yes.

AUDIENCE MEMBER: The anticipated life of those tanks' shelves would be?

MR. CODY: They pretty much reached their expected life already. They are at the end,

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pretty much. But, again, it's still INEEL soil that is still dry, so I think their integrity is intact so far, but they are pretty much at the end.

AUDIENCE MEMBER: So what would be happening under the surface if those walls begin to disintegrate?

MR. MICHAEL: It should stay right there.

AUDIENCE MEMBER: Should because it's been --

MR. MICHAEL: Immobilized by this grout?

MR. CODY: It's tied up in that diatomaceous earth.

MR. WILKENING: What branch are we dealing with? They are not very migratory just by themselves, are they?

MR. MICHAEL: No.

MR. WILKENING: They would have some sort of a strong force to drive them further, and it's a high desert environment, and you're, whatever, two hundred feet from the groundwater table.

AUDIENCE MEMBER: We have some contaminants that are in there that are going to

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last a couple years or so or tens of thousands of years and we could have some geologic changes.

MR. MICHAEL: I'm not sure that the length of time, though, that we're talking about, because it is cesium, it will decay on its own.

MR. CODY: Cesium ties up in soil the most of any radionuclides. I mean, it has the highest levels of tieing up in soil -- I mean, it just doesn't move through soil readily, and that's been proven.

AUDIENCE MEMBER: So the chances are better -- the odds are better to be tied up and decay fast enough to --

MR. CODY: Right. They did some modeling, if you can believe the models. You can take them with a grain of salt, but they did some modeling of what would happen if there was a catastrophic release of those tank contents. They showed that it wouldn't impact the aquifer. I mean, if there is some way to make them go completely and release everything, which won't happen like that, so a worst-case scenario still showed no danger, highly improbably worst-case scenario.

MR. MICHAEL: One of the things

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about cesium, we talked about cesium-contaminated soil, the different areas that we talked about had cesium-contaminated soil, whether it was either spilled or whatever, it was almost always contained in the top six inches of the soil. That is even with snow and rain continually, year round, even though our moisture content is limited. Through the years, it's been contained in the top six inches of soil, so it does not migrate easily at all.

What I have presented is the alternatives that we recommend for our eight sites of concern. Just to refresh, remember we did have 94 sites, eight of those we felt needed addressing, and we've discussed the way we would recommend to address those sites tonight.

You saw the different costs I put up with each site, if we totaled all the costs up to clean up Test Area North, we're looking at $25.8 million for the capital costs. Capital costs are those costs that actually cost to do the remedy. There are some costs additional to that, which are due to the monitoring and that sort of thing over the next hundred years.

To kind of tell you where we're at

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now, we presented you with the alternatives to get your input. The next step, if you remember the one slide, is to develop a Record of Decision. That Record of Decision is planned on being finalized in the fall of this year. Once the Record of Decision is finalized, and the Record of Decision will then specifically state what we plan on doing, then the next phase is to actually start designing and doing. And with the Record of Decision being done in the fall of this year, being completed, then in the fall of this year we would start the design, and the actions that we would use for the different remedies.

I'm going to turn it back over to Erik.

MR. SIMPSON: Thanks. We've had some pretty good interaction so far. Does anyone else have any questions to ask of the project managers?

AUDIENCE MEMBER: I have another question with the in situ vitrification of the tanks. In the case, as you continue your research with less than 80 percent site, if that research indicates that this is a process that isn't going to be feasible, then, where do you -- what is

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Plan B or how do you cope with that kind of situation?

MR. MICHAEL: If we determine that the in situ vitrification would not be appropriate, then our fall-back position would be our next preferred alternative, say our second choice, would be the grouting, to go in and grout up the contents and bind them in place.

AUDIENCE MEMBER: I have a question about the injection well, what was the material that was put into the aquifer?

MR. BURNS: The principle material was TCE, trichlorethylene, so it's principally organic so we pumped down that well. We had TCE, and PCB and dichloroethane those are the three major contaminants that we're trying to contain in the aquifer.

AUDIENCE MEMBER: Do have you any idea how large the plume is?

MR. SHAW: Two-and-a-half miles long. What makes this an interesting problem is that the chemical and the red waste were mixed with sewage when they injected this stuff, so you have this sticky glop that was injected down into the well under pressure and it went out some distance

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into the fractured basalt. So over the years that the aquifer passes through this area, it's going to pick up the contaminants and wash them so far, about two-and-a-half miles down stream.

AUDIENCE MEMBER: So it's moving slow?

MR. SHAW: Thirty years.

MR. BURNS: Our latest data is tending to go indicate that the plumes need to be stable that it's not really moving. We, obviously, have to collect more data, but the indication is that it's moving very slowly or maybe not at all.

AUDIENCE MEMBER: How deep is the aquifer?

MR. SHAW: I think the effective bottom is about 400 feet. The top of it is about 200, and I think the bottom in that area is about 400.

AUDIENCE MEMBER: Where I worked, we had some trichlorethylene in the aquifer. We took it out. We developed a way to take it out, but it was not very far underground. I think you have a real tough problem.

It took us a long time to get the top few gallons off.

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MR. SIMPSON: If you're interested, there is a fact sheet in the back of the room that talks about that project. I can get it for you at the break.

AUDIENCE MEMBER: At Lawrence Lab?

MR. SIMPSON: No, here, this project.

AUDIENCE MEMBER: Were there records kept of the volumes?

MR. SHAW: Unfortunately, it's pretty sketchy. We estimate anywhere from 3500 to 35,000 gallons were injected. This was from about 1952 to 1972, and they didn't keep good records.

AUDIENCE MEMBER: In the overall clean-up process assessment, as you're assessing, do you have -- well, let me put it this way. It seems to me that anything that we can possibly do to stop -- to slow or stop this movement of the plume is a very high priority. It might need to be, let some other diesel fuel fly around for a while and chase this one.

MR. SHAW: We jumped on the problem right away back in -- I think it was discovered in -- we're going back before my time, but I think it was '87. They went in in 1989 and pulled a

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bunch of sludge out of the injection well, and since about 1991 or so, they have been actively remediating the plume. We have been pumping on it continuously since -- oh, let's see, November of '96 to contain that hot spot to keep it from contributing to the plume any farther, so they jumped right on it.

AUDIENCE MEMBER: The back end you have a grip on it. What about the front end?

MR. SHAW: We have a grip on it. We have a plan for taking care of it. We're looking at some in situ bioremediation. We're looking at in situ chemical oxidation. We're doing some tests on that. We're over doing some more tests on the natural attenuation to see what is happening in the far reaches of the plume. Will nature take care of it or will we have to go in there and help it? A lot of work going on.

AUDIENCE MEMBER: What is your estimate, 30 years?

MR. SHAW: The Record of Decision says to restore the plume to within in MCLs within 100 years. The 30 years is a cost-estimating window that you use.

MR. SIMPSON: Mark, will you define

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what MCLs are.

MR. SHAW: Maximum contaminant level.

MR. SIMPSON: Any other questions? I'll mention that we will hang around after the meeting, if you think of other questions to ask of the project managers.

At this time I would like to open it up for the public comment session where your comments are made for the record. And we have a court reporter, who will be recording your comments verbatim. When you do make your comments, please state your name and give your address so we can send you a copy of the Record of Decision. So, who would like to go first? Anyone?

PUBLIC COMMENT

AUDIENCE MEMBER: I'm Pam McAllister. I'm from Boise. I represent the Snake River Alliance. I'm not going to enter any specific comments into the record tonight, although I'm very glad to have such a thorough presentation.

We will enter our comments in written form. Beatrice Bradsford will do that on

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our behalf. She is our program director. And we appreciate the extension that you have given to the other times. And for us, it may be that we will need to request an extension again -- I don't know if that is possible -- due to Beatrice's illness.

MR. SIMPSON: Thanks. Anyone else? Okay. I just want to remind you that there are comment forms at the back of each proposed plan and those are postage-paid, so you can write your comment and mail those to us. The comment period for this project, once again, remains open until March 18th. Our next public meeting is Thursday in Moscow.

I should mention, the next time that we will be here in Boise will be May the 5th to discuss the results of the Comprehensive Remedial Investigation Feasibility Study for the Idaho Chemical Processing Plant.

I've been involved in writing fact sheets for that project. I can tell you there is a great deal of interest in the Chem Plant, specifically, for the contamination that exists and then also for the possible costs of remediation of that facility.

AUDIENCE MEMBER: Do you have the

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other sites' schedules for that? Will you be meeting in Idaho Falls and Moscow for the Chem Processing Plant?

MR. SIMPSON: Yes, we will. Right now the dates are tentative, but May 5th, 6th and 7th.

AUDIENCE MEMBER: The order?

MS. DOLD: I believe it's Boise, Moscow and Idaho Falls.

MR. SIMPSON: I should mention there will be another fact sheet that will becoming out on that project as well.

AUDIENCE MEMBER: Is there any flexibility in moving those dates one week into May, or is that not the moving target part?

MR. SIMPSON: I would say the dates at this point are just tentative.

AUDIENCE MEMBER: I would make a note, offer it to the committee that it happens to be that is the exact same date that all the Alliance and some of our directors will be out of the state at a National meeting, and we're going to miss the big deal. We will be sending proxies or conference calls or e-mails. S I don't know what we will do, but if you can move it up to the next

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week of May, that will be very helpful for us.

MR. SIMPSON: I will convey your comment to the project managers.

Also, you can request a briefing on that project. And I have been involved in some media briefings that we've done so far, and we did a radio interview a couple weeks ago in Idaho Falls. You can request a briefing on that project, as well as Test Area North.

I would like to thank everyone for coming tonight. As I mentioned earlier, we will hang around afterwards, if you have any questions. So thanks for coming.

(Meeting concluded at 8:30 p.m.)

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STATE OF IDAHO) ss.
County of Ada)

I, N A N C Y S C H W A R T Z, a Notary Public in and for the State of Idaho, do hereby certify:

That said hearing was taken down by me in shorthand at the time and place therein named and thereafter reduced to computer type, and that the foregoing transcript contains a true and correct record of the said hearing, all done to the best of my skill and ability.

I further certify that I have no interest in the event of the action.

WITNESS my hand and seal this 20th day of March, 1998.

Nancy Schwartz, Notary
Public in and for the
State of Idaho

My commission expires:
September 28, 1998

STATE OF IDAHO)
) ss.
County of Ada)

I, N A N C Y S C H W A R T Z, a Notary Public in and for the State of Idaho, do hereby certify:

That said hearing was taken down by me in shorthand at the time and place therein named and thereafter reduced to computer type, and that the foregoing transcript contains a true and correct record of the said hearing, all done to the best of my skill and ability.

I further certify that I have no interest in the event of the action.

WITNESS my hand and seal this 20th day of March, 1998.

Nancy Schwartz

Nancy Schwartz, Notary
Public in and for the
State of Idaho

My commission expires:
September 28, 1998